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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,188	08/06/2001	Ben J. Sloan	FSI0022/US/3	9116

7590 03/08/2002

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EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 03/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,188

Applicant(s)

Sean & Reed

Examiner

Ford

Art Unit

13743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/6/01 (filing of application) + IDS (11/27/01)
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152) Drawing No. _____
- 20) ☐ Other: ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

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The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 27-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,308,776. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 27-31, here, simply recite the same subject matter as that in the patent 6,308,776, albeit but more broadly. Courts have ruled that these broader pending claims directed to the same subject as the issued claims must be terminally disclosed. See *In re Goodman*, referenced above, for the rationale.

Claims 27-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 5,706,890. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 27-31, here, simply recite the same subject matter as that in patent 5,706,890, albeit but more broadly. Courts have ruled that these broader pending claims must be terminally disclaimed. See *In re Goodman*, referenced above, for the rationale.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27, 29 and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ebinuma et al. (5,577,552).

See Figure 2 and the explanation thereof. Note heaters 15, 16, 17 each independently control temperature to stations 6, 7 and 8. Note in col. 4, lines 10-30, the cooler is at 19.9° degrees C and the heaters heat the fluid to 20° degrees C.

To have controlled each of heaters 16 and 17 in a separate feedback loop such as shown in reference to heater 15 (controller 23, temperature sensor 22) in Figure 2 of Ebinuma would have been obvious to more precisely control temperature at stations 7 and 8.

Claims 28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 27 and 29 above, and further in view of JP 62-74112 or Moen or JP 4-371751 or JP 61-27444.

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JP `112 teaches a bypass 12 (Figures 1 and 6) to improve the temperature control of a heater 11 responsive to a plurality of temperatures T1, T2 (Figure 6) and T1, T2, T3 (Figure 1).

To have used a bypass and controller such as taught by JP `112 (in Figures 1 and 6) around the in-line heaters (15, 16 and 17) of Ebinuma to improve temperature control would have been obvious.

Moen teaches a temperature controlled valve 118 (col. 5, lines 38-41) in a bypass line 24 around in-line heaters 40 and 42, for the purpose of preventing temperature "overshoot".

To have added a temperature responsive bypass such as taught by Moen around each of in-line heaters 15, 16 and 17 of Ebinuma to avoid any "overshoot" problems would have been obvious to one of ordinary skill.

JP `751 teaches a bypass 8 with a valve 7 and various sensor around heater 1 for the purpose of diminishing the variation of hot water temperature.

To have provided such a bypass valves and sensors as taught by JP `751 around ~~each~~ each of the in- line heaters 15, 16, 17 of Ebinuma to reduce variations in hot fluid temperature would have been obvious to one of ordinary skill.

Finally JP `444 in Figures 2 and 4 teaches a bypass (having valve 16 in Figure 2 and valve 24 in Figure 4) around an in-line heater 17 to maintain fluid temperatures at desired levels. To have added such a bypass, valves and restrictors around each of in-line heaters 15, 16 and 17 of Ebinuma to properly maintain fluid temperatures would have been obvious to one of ordinary skill.

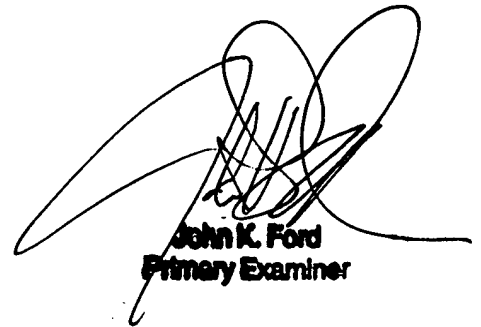
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Any inquiry concerning this communication should be directed to John Ford at telephone number (703) 308-2636.

J. FORD:th
February 25, 2002



John K. Ford
Primary Examiner